

NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.



## **SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES**

### **SHARING LESSONS LEARNED**

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



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## **Team Phase 2: Identify Priorities**

### **Facility Description:**

Community, not-for-profit, Level III Trauma Center with 249 in-patient beds and 3 outpatient sites. The hospital is part of a large healthcare system. The facility employs approximately 1,100 employees, and approximately 600 physicians.

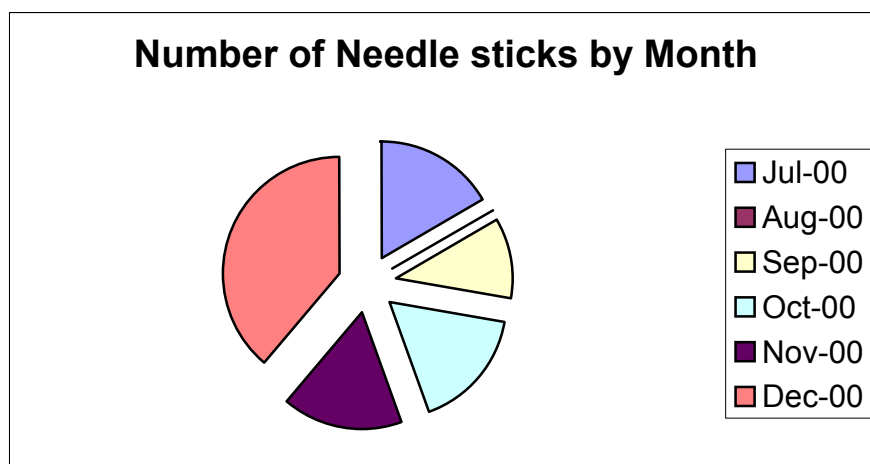
### **I. Description of the type of information used to determine priorities:**

The hospital Occupational Health Nurse is a member of the hospital Safety Committee. Her monthly report to the Safety Committee includes a detailed report of all employee injuries, including sharps and needle stick injuries. The employee injury statistics are kept by fiscal year and presented in a uniform format. The format included the following information:

- Department where the injury occurred;
- The type of employee: nurse, physician, Operating Room scrub technician, environmental, visitor, respiratory, laboratory;
- Type of device used: needle, IV therapy device, scalpel, suture, phlebotomy;
- Circumstances at the time of the incident: over full sharps containers, combative patient, distractions;
- Type of equipment involved: suture holder, hemostats, syringe devices;
- Patterns: Departments where the greatest number of injuries occurred, employees with multiple injuries, procedures where there are a higher number of injuries occur, or the same device was involved repeated.

In January 2001, a six (6) month review of needle sticks revealed, that the majority of needle sticks were as a result of over-full sharps containers. The Safety Committee reported the trend to Senior Administration with a recommendation for the formation of a Task Force to address the issue of over-full sharps containers. Further analysis of the data did not reveal a specific department, employee title, type of device, circumstances, or type of equipment. It was noted that there were twice as many needle sticks in

December, but no explanation for this could be rationalized. The common theme was the over-full sharps containers and they were in all departments.



Senior Administration decided the first step should be to form a multi-disciplinary rapid cycle task force to urgently address the over-full sharps containers. Team members were appointed and this was the first step in the development of the Needle Stick Reduction Committee.

## **2. Lessons learned from this process.**

As with most issues identified for improvement, it is often challenging to gain a full grasp of the issues and opportunities. When the Needle Stick Reduction Committee was first formed, no one on the team realized that the visitor and physician needle sticks and sharps injuries were not reported to the Occupational Health Nurse. The Occupational Health Nurse did not realize the Committee members did not know. Great care must be taken about making assumptions when starting the committee and an effort should be made to ask the very basic questions when getting started. This helps in gathering the required information and getting it disseminated to all committee members.

Provide the chair-person of the committee with a liaison from Quality and or Information Systems to assist with data bases and available computer

technology. The data was initially presented in a word document and tabulation of the total number of needle stick and sharps injuries were computed manually.

Improving a process is never as easy as it first seems. Once the initial reason for forming the task force had been resolved, other opportunities for improvement quickly came to the forefront demanding attention. Overall improvements don't happen immediately. Employees closest to the issues have invaluable insight into the issues and can offer great recommendations for resolving identified issues.

### **3. Improving the Process**

The employee needle stick surveillance report to the Safety Committee is very appropriate. Having appropriate employees on the Safety Committee to quickly identify opportunities that need immediate attention is invaluable. Having an employee from the Quality Department as part of the Safety Committee has improved the timeliness of identifying and addressing opportunities for improvement.

Have all needle stick and sharps injuries report to one place for better analysis and trending of the data. There may be a common thread, device, piece of equipment, or procedure contributing to needle and sharps injuries that might be missed if the reporting is done in two (2) different places.

Keeping the data clean and making it easy for committee members to access is vitally important. The establishment of an Excel or other data base that automatically calculates the numbers and percentages, instead of manual calculations decreases the chances of errors by manual calculations and can be set up for continuous tracking.

Trend and address needles sticks and sharps injuries separately. The cause of these injuries may be very different and separate analysis and trending is vital.

Improve communication. While this information was reported monthly at the Safety Committee meeting, it was not disseminated out to all area of the hospital. Issues cannot be addressed if they are not identified and the information

shared. Keep the communication going so that staff realize the importance of the issue.

#### **4. Advice to similar facilities.**

1. Make sure there is a good surveillance program for the collection of data on needle sticks and sharps injuries.
2. Perform a literature review on library sites and the Internet to look for information on laws and regulations on needle stick injuries, best practices, and bench marks.
3. Have a multi-disciplinary approach to solving the problems. Involve staff closest to the problems who can provide valuable information.
4. Don't be afraid to ask the difficult questions. What part of our process works? Why? Why not? Does everyone know the role they play in the process? Is there a better way or a better piece of equipment to help us accomplish the task? How can we do it better?
5. Identify early on what your goal is and why is it a valuable thing to be tackling.

#### **5. Role of the sharps injury prevention team.**

The Needle Stick Reduction Committee played a major role in cleaning up the way the data was being collected and analyzed. All needle stick and sharps injuries were reported to one person for easier analysis and trending. Sharps injuries were collected and evaluated separately from needle injuries.

The Excel data base was developed by a committee member and the Occupational Health Nurse was taught how to enter data, so that it automatically performed calculations.

The committee-chair of the Needle Stick Reduction Committee had the authority to communicate with Directors in areas where injuries were occurring to ask for action plans on correcting identified issues.

The Needle Stick Reduction Committee worked with the Education Department to address any areas for learning identified through the analysis of the data.

**6. Other relevant information about the process or problems encountered.**

Establish a set meeting time so people can plan their calendars. Complete assignments prior to the meetings, so meetings are productive.

**7. Estimated Time to complete Phase I:**

Explanation of Time
Meeting time
Computer time for literature review and Internet search
Meeting with Occupation Health Nurse and Supply Director
Emailing and working with Directors on action plans
Typing, minutes, sign in sheets, copying, e-mailing, distributing, printing

Type of Staff	Time in hours
Administrative	3
Management	16
Staff	14
Total	33

**10. References:**

[www.cdc.gov](http://www.cdc.gov)

[www.ana.org](http://www.ana.org)

[www.jcaho.org](http://www.jcaho.org)

[www.osha.gov](http://www.osha.gov)

[www.nursingworld.org](http://www.nursingworld.org)

[www.infectioncontrolday.com](http://www.infectioncontrolday.com)

Ream, K. A. "Inside Washington", *Journal of Emergency Nursing*, 26(1), February, 2000, pp.23A-26A.